



April 18, 2006

Mr. Mark Verhey
Humboldt County Division of Environmental Health
100 H Street, Suite 100
Eureka, California 95501

**Re: First Quarterly Monitoring Report for March 2006 at
Blue Lake Forest Products, 1589 Glendale Drive, Arcata, CA
LOP# 12196**

Dear Mr. Verhey:

On behalf of Blue Lake Forest Products, Winzler & Kelly Consulting Engineers (Winzler & Kelly) is submitting the following quarterly monitoring data collected in March 2006 for the above-referenced site. The purpose of this letter report is to document the activities, results, and findings of the quarterly monitoring program. All figures referred to herein are included in Appendix A, all tables are included in Appendix B, laboratory analytical reports are contained in Appendix C, Standard Operating Procedures (SOP) are contained in Appendix D, and Field Notes are contained in Appendix E.

Quarterly Monitoring Activities

On March 14, 2006, a Winzler & Kelly technician obtained water levels from monitoring wells MW-11, MW-12, MW-13, and MW-14 in order to calculate groundwater gradient. The site monitoring wells were then purged and sampled according to Winzler & Kelly's SOP for "*Monitoring Well Purging and Sampling Activities*" found in Appendix D. During purging, pH, temperature, dissolved oxygen and specific conductivity readings were also measured. A regional map, site vicinity map, and site map with groundwater gradient and well locations are shown on Figures 1, 2, and 3 respectively (Appendix A).

Hydrographic Data

Depth to water measurements were collected after removing all well caps and allowing the wells to equalize for at least 15 minutes in accordance with Winzler & Kelly's SOP for "*Groundwater Level Measurements and Free Phase Hydrocarbon Measurements*" (Appendix D). Depth to water was measured for each well from the top of the well casing. Depth to water measurements and water groundwater elevations are included in Table 1, Appendix B.

The calculated groundwater gradient using the measurements from the four site monitoring wells during the March 2006 sampling event was similar to previously calculated groundwater gradients for this site. The calculated gradient was 194.84° Azimuth with a magnitude of 2.19 feet per 100 feet. Table 2, Appendix B shows the historical groundwater gradient summary for the site and Figure 3, Appendix A shows the groundwater gradient calculated for the March 2006 sampling event.

Depth to water data for the March 2006 sampling event was submitted electronically to the State Water Resources Control Board Geotracker System on April 18, 2006.

Dissolved Oxygen Measurements

Dissolved oxygen (DO) concentrations were field measured for MW-11, MW-12, MW-13 and MW-14 using an electronic dissolved oxygen probe. The DO measurements were recorded prior to well purging and sampling activities. The DO measurements are summarized on Table 3 (Appendix B).

Water Sampling

On March 14, 2006, all four site monitoring wells were purged in accordance with Winzler & Kelly's SOP for "*Monitoring Well Purging and Sampling Activities*" (Appendix D). As standard procedure, measurements of temperature, conductivity, and pH of purge water from each well are made to verify that equilibrium has been attained prior to sampling. After purging at least three wetted casing volumes of water from each monitoring well, the water level was allowed to recover to approximately 80% of its pre-purge level before sampling.

During purging and sampling, petroleum sheen was noted at MW-14. Petroleum odor or sheen was not detected in any of the remaining monitoring wells.

As part of the quarterly groundwater monitoring program, groundwater samples collected from site monitoring wells MW-11, MW-12, MW-13 and MW-14 were analyzed for the following:

- Total Petroleum Hydrocarbons as Gasoline (TPH-G) and Benzene, Toluene, Ethylbenzene, and Xylenes, including m,p-Xylene and o-Xylene (BTEX) by EPA Method 5030/8021B.
- Total Petroleum Hydrocarbons as Diesel (TPH-D) and Total Petroleum Hydrocarbons as Motor Oil (TPH-MO) by EPA Method 3510/GCFID/8015B with silica gel cleanup.

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Groundwater Analytical Results

The results of the water sample analyses are summarized in Table 4 in Appendix B. The laboratory reports and chain of custody documentation are included in Appendix C.

All tested constituents for MW-12, except benzene, were below laboratory detection limits for the March 14, 2006 sampling event. The groundwater sample collected from monitoring well MW-12 had benzene reported at a concentration of 1.1 parts per billion (ppb). The concentration of TPH-D decreased from 57 ppb during the December 2005 sampling event to below laboratory detection limits for the March 2006 sampling. Concentrations of TPH-D and TPH-G have decreased since the first quarterly sampling event in December 2004, when they were reported at 5,700 ppb of TPH-D and 280 ppb of TPH-G.

The samples collected from MW-11, MW-13 and MW-14 were below the method detection limits for all analytes tested, as they were in the March, June, and December 2005 sampling events.

Laboratory analytical results for the groundwater samples collected on March 14, 2006, from MW-11, MW-12, MW-13, and MW-14 were submitted electronically to the State Water Resources Control Board Geotracker System on April 18, 2006.

Disposition of Soil and Wastewater

Two 55-gallon drums of purge water are stored at the site. One of the drums holds purge water generated during groundwater sampling of the contaminated wells MW-12 and MW-13. The other drum is storing purge water from the sampling of wells MW-11 and MW-14. When full, the drum containing purged water from the contaminated wells (MW-12 and MW-13) will be disposed of at the City of Eureka's wastewater treatment plant. Arrangements for this disposal will be made when necessary. The drum containing purge water from wells MW-11 and MW-14 will be spray irrigated at the site in a manner that will avoid runoff or ponding.

Quality Assurance/Quality Control (QA/QC)

A trip blank was submitted with the groundwater samples. All constituents were below laboratory detection limits in the trip blank. Laboratory QA/QC was provided by the use of lab Method Blanks to preclude false positive analysis of analytes and the use of Laboratory Control Spike samples (LCS) to evaluate the percentage recovery of target analytes during analysis. The method blank reported results for MTBE, TPH-D, and TPH-MO at levels below quantitation limits. The LCS recoveries were above the upper acceptance limit for MTBE and the relative percent difference (RPD) was above the acceptance limit. The RPD for the LCS and LCSD were above the acceptance limits for diesel.

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The lab also noted:

- All Samples submitted for a silica gel cleanup were initially analyzed for diesel/motor oil. The samples showing no detectable levels of the analytes were not subjected to the cleanup procedure.
- TPH as Diesel/Motor Oil w/ Silica Gel Cleanup:
The relative percent difference (RPD) for the laboratory control samples were above the acceptable limits for diesel and motor oil. This indicates that the results could be variable. Since there were no detectable levels of the analytes in the sample, the data were accepted.
- TPH as Diesel/Motor Oil:
The relative percent difference (RPD) for the laboratory control samples were above the acceptable limits for diesel. This indicates that the results could be variable. Since there were no detectable levels of the analytes in the sample, the data were accepted.
- BTEX:
The Surrogate recovery for sample MW-13 was below the lower acceptance limit. The response of the reporting limit standard was such that the target analytes would have been detected even with the low recovery; therefore, the data were accepted.
- The laboratory control sample (LCS) recoveries were above the upper acceptance limits for MTBE and the surrogate, cis-1,2-dichloroethylene. These recoveries indicate that the sample results may be erroneously high. There were no detectable levels of the target analytes in the samples; therefore, the data were accepted.
- The relative percent difference (RPD) for the laboratory control samples were above the acceptance limit for MTBE. This indicates that the results could be variable. Since there were no detectable levels of the analyte in the samples, the data were accepted.

Conclusions & Recommendations

- The groundwater gradient on March 14, 2006, calculated at 2.19 feet per 100 feet and flowed at 194.84° Azimuth, is consistent with previous calculations.

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- Groundwater contaminant levels show a declining trend from the initial December 2004 sampling event. Benzene in groundwater from MW-12 was the only analyte with above laboratory detection limits for the March 2006 sampling event.
- The HCDEH has approved the installation of four borings on the south side of the Dip Tank Building. Once the results of the boring sampling are obtain, one to two additional monitoring well will be installed at the site to better assess any down gradient migration of the plume. Winzler & Kelly is in the process of acquiring permits and compiling a cost estimate and contract amendment for the proposed work.
- The next quarterly monitoring event is scheduled for June 2006, and should include well installation data.
- The drum containing purge water from wells MW-11 and MW-14 will be spray irrigated at the site in a manner that will avoid runoff or ponding.


If you have any questions or comments, please do not hesitate to call.

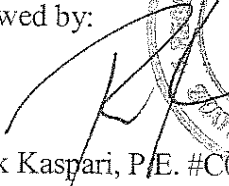
Sincerely,

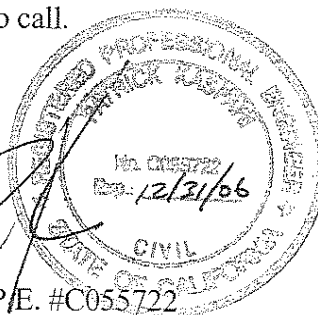
WINZLER & KELLY

Prepared by:

Reviewed by:


Vanessa Tomlin
Staff Scientist

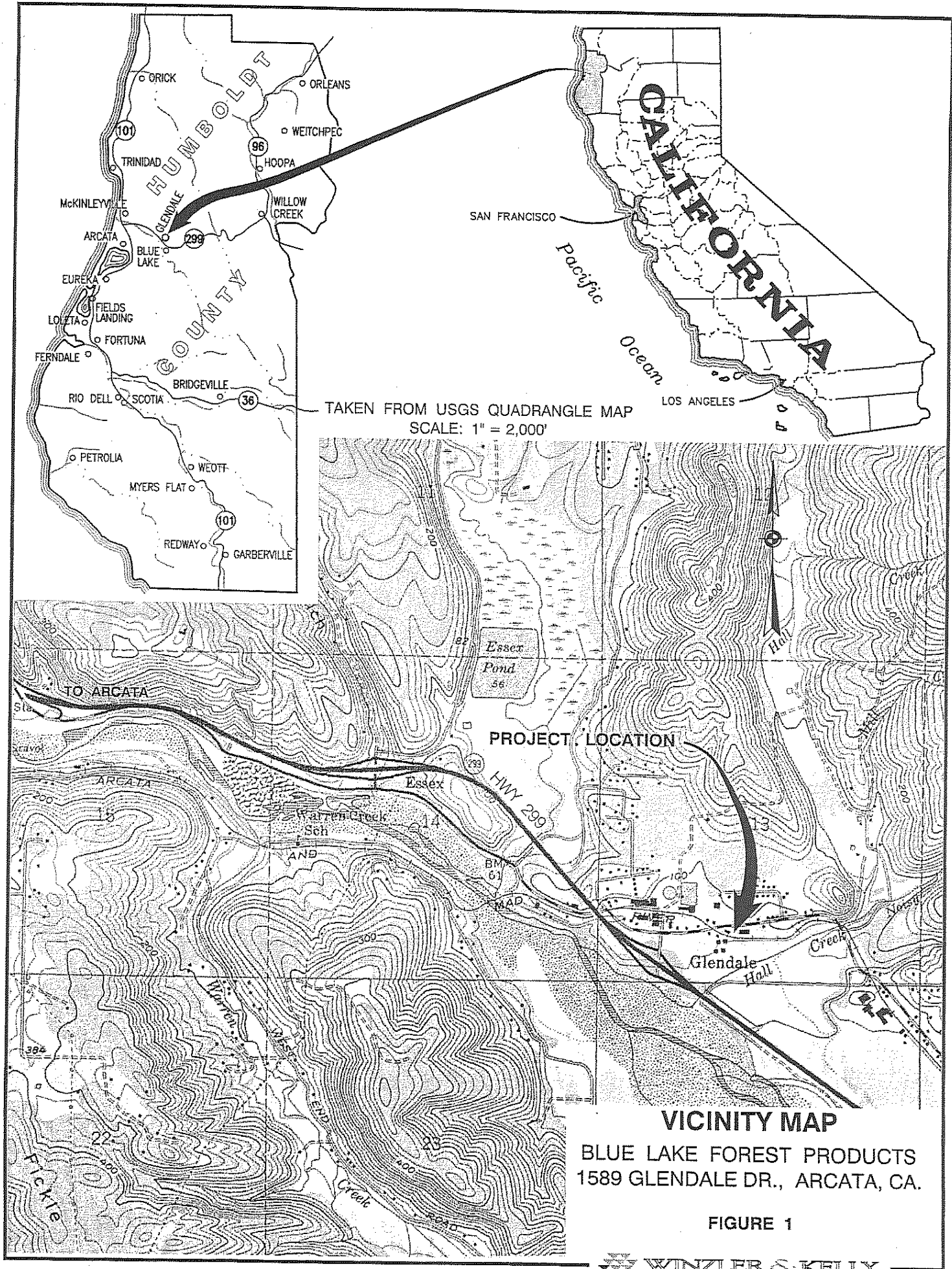

Patrick Kaspari, P.E. #C055722
Project Engineer

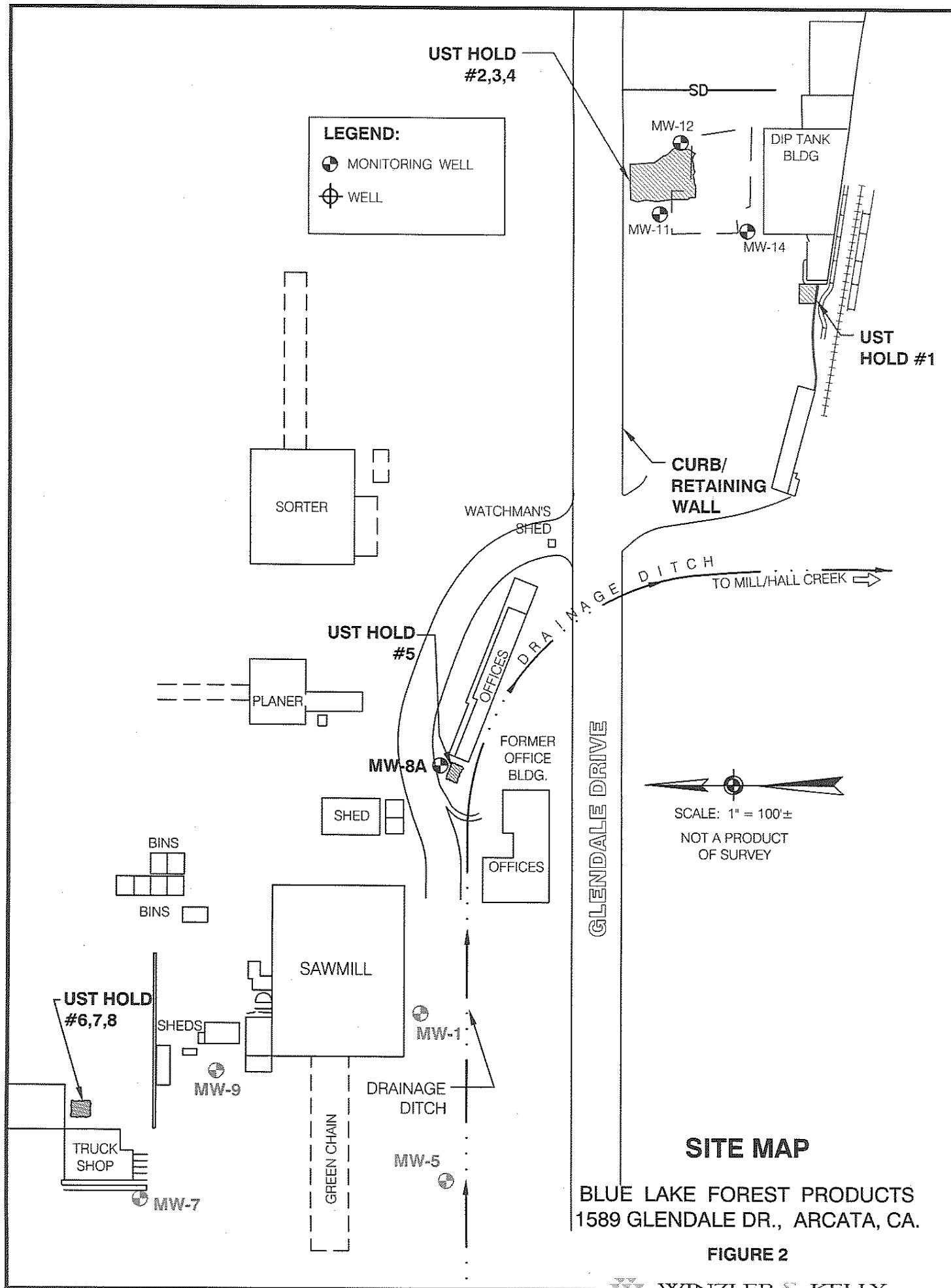


Enclosures: Appendix A: Figures
Figure 1 Site Vicinity Map
Figure 2 Site Map
Figure 3 Gradient Map
Appendix B: Tables
Table 1 Historic Groundwater Elevations
Table 2 Groundwater Gradient Summary
Table 3 Dissolved Oxygen Concentrations
Table 4 Groundwater Analytical Results
Appendix C: Laboratory Analytical Reports
Appendix D: Standard Operating Procedures
Appendix E: Field Notes

c: Dan Aalfs, P.O. Box 2159, McKinleyville, CA 95519
Gary Johnston, 1325 G Street, Eureka, CA 95501

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LEGEND

MW-13



MONITORING WELL

SCALE: 1" = 30'±



LIMITS OF
EXCAVATION

NOT A PRODUCT
OF SURVEY



STORM DRAIN



WELL

MW-13
(86.95)

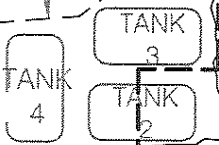
PAVED AREA

GLENDALE DRIVE

3.5' RETAINING
WALL

U.G.T. HOLD
#2,3,4

MW-12
(87.79)



MW-11
(87.70)

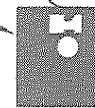
DIP TANK BLDG.

MW-14
(85.94)

PAVED AREA

GROUNDWATER FLOW
DIRECTION = 194.84° Az.
2.19 FT./100 FT.
MARCH 14, 2006

U.S.T. HOLD #1



GRADIENT MAP

U.S.T. HOLD #1, 2, 3, 4
BLUE LAKE FOREST PRODUCTS
1589 GLENDALE DR., ARCATA, CA.

FIGURE 3



WINZLER & KELLY

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TABLE 1
HISTORIC GROUNDWATER MEASUREMENTS
BLUE LAKE FOREST PRODUCTS

Monitoring Well ID Well Location	MW-11			MW-12			MW-13			MW-14		
	northing	easting		northing	easting		northing	easting		northing	easting	
	40.89993	-124.01589		40.89991	-124.01738		40.89973	-124.01534		40.89970	-124.01593	
Top of Casing (ft MSL)	91.47			91.52			91.19			91.71		
DATE	DTW (ft bgs)	GW ELEV (ft MSL)		DTW (ft bgs)	GW ELEV (ft MSL)		DTW (ft bgs)	GW ELEV (ft MSL)		DTW (ft bgs)	GW ELEV (ft MSL)	
2-Dec-04	10.28	81.19		10.49	81.03		11.00	80.19		11.59	80.12	
26-Mar-05	6.63	84.84		6.64	84.88		6.92	84.27		8.38	83.33	
15-Jun-05	7.90	83.57		8.00	83.52		8.42	82.77		8.98	82.73	
19-Sep-05	10.70	80.77		10.82	80.70		11.54	79.65		12.05	79.66	
21-Dec-05	5.00	86.47		5.00	86.52		5.08	86.11		6.71	85.00	
14-Mar-06	3.77	87.70		3.73	87.79		4.24	86.95		5.77	85.94	

TABLE 2
GROUNDWATER GRADIENT
BLUE LAKE FOREST PRODUCTS

<i>Date of Data Collection</i>	<i>Groundwater Flow Direction</i>	<i>Degrees Azimuth</i>	<i>Slope in Feet Per 100 Feet</i>
2-Dec-04	South	179.88	1.29
26-Mar-05	South-Southwest	196.35	1.85
15-Jun-05	South	179.90	1.07
19-Sep-05	South	178.41	1.43
21-Dec-05	South-Southwest	200.30	1.79
14-Mar-06	South-Southwest	194.84	2.19

TABLE 3
DISSOLVED OXYGEN CONCENTRATIONS
 BLUE LAKE FOREST PRODUCTS
 1589 Glendale Drive Arcata, CA
 LOP# 12196

	<i>MW-11</i>	<i>MW-12</i>	<i>MW-13</i>	<i>MW-14</i>
19-Sep-05	2.5	2.9	1.7	3.9
21-Dec-05	2.9	3.6	4.7	1.6
14-Mar-06	4.7	5.2	5.4	1.2
DO concentrations in milligrams/liter				

TABLE 4
GROUNDWATER ANALYTICAL RESULTS
BLUE LAKE FOREST PRODUCTS

Sample	Date	TPH-Diesel (ppb)	TPH-MO (ppb)	TPH-Gas (ppb)	MTBE Methyl tert-butyl ether (ppb)	TBA Tert-butyl alcohol	DIPE Di-isopropyl ether	ETBE Ethyl tert-butyl ether	TAME Tert-amyl methyl ether	Benzene (ppb)	Toluene (ppb)	Ethyl- Benzene (ppb)	m,p Xylene (ppb)	"o" Xylene (ppb)	Lead (ppb)
MW-11	12/2/04	< 50 ²	NT	< 50	< 1.0	< 10	< 1.0	< 1.0	< 1.0	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 5
	3/26/05	< 50	< 170	< 50	< 3.0	NT	NT	NT	NT	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	NT
	6/16/05	< 50	< 170	< 50	< 3.0	NT	NT	NT	NT	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	NT
	9/19/05	< 50	< 170	< 50	< 3.0	NT	NT	NT	NT	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	NT
	12/21/05	< 50	< 170	< 50	< 3.0	NT	NT	NT	NT	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	NT
	3/14/06	< 50	< 170	< 50	< 3.0	NT	NT	NT	NT	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	NT
MW-12	12/3/04	5700 ^{1,2}	NT	280 ³	< 1.0	< 10	< 1.0	< 1.0	< 1.0	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	NT
	3/26/05	190 ¹	< 170	72 ³	< 3.0	NT	NT	NT	NT	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 5
	6/16/05	580 ¹	< 170	56 ³	< 3.0	NT	NT	NT	NT	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	NT
	9/19/05	790 ¹	< 170	89 ³	< 3.0	NT	NT	NT	NT	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	NT
	12/21/05	57 ^{1,2}	< 170	< 50	< 3.0	NT	NT	NT	NT	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	NT
	3/14/06	< 50	< 170	< 50	< 3.0	NT	NT	NT	NT	1.1	< 0.50	< 0.50	< 0.50	< 0.50	NT
MW-13	12/3/04	580 ^{1,2}	NT	220 ³	< 1.0	< 10	< 1.0	< 1.0	< 1.0	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 5
	3/26/05	< 50	< 170	< 50	< 3.0	NT	NT	NT	NT	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	NT
	6/16/05	< 50	< 170	< 50	< 3.0	NT	NT	NT	NT	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	NT
	9/19/05	100 ¹	< 170	73 ³	< 3.0	NT	NT	NT	NT	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	NT
	12/21/05	< 50	< 170	< 50	< 3.0	NT	NT	NT	NT	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	NT
	3/14/06	< 50	< 170	< 50	< 3.0	NT	NT	NT	NT	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	NT
MW-14	12/3/04	< 50 ²	NT	< 50	< 1.0	< 10	< 1.0	< 1.0	< 1.0	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	NT
	3/26/05	< 50	< 170	< 50	< 3.0	NT	NT	NT	NT	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	< 5
	6/16/05	< 50	< 170	< 50	< 3.0	NT	NT	NT	NT	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	NT
	9/19/05	< 50	< 170	< 50	< 3.0	NT	NT	NT	NT	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	NT
	12/21/05	< 50	< 170	< 50	< 3.0	NT	NT	NT	NT	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	NT
	3/14/06	< 50	< 170	< 50	< 3.0	NT	NT	NT	NT	< 0.50	< 0.50	< 0.50	< 0.50	< 0.50	NT

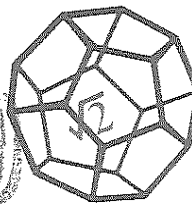
Notes:

- 1 Sample contains material similar to degraded or weathered diesel oil.
- 2 The laboratory control sample (LCS) and the laboratory control sample duplicate (LCS-D) recoveries were above the upper acceptance limit for diesel. These recoveries indicate that the sample results may be erroneously high. There were no detectable levels of the analyte in the samples; therefore, the data were accepted.
- 3 Samples do not present a peak pattern consistent with that of gasoline. The peaks elute toward the end of the gasoline range. The material appears to be a product heavier than gasoline. The reported results represent the amount of material in the gasoline range.

Appendix C

Laboratory Analytical Reports

RECEIVED
APR - 5 2006



NORTH COAST
LABORATORIES LTD.

March 31, 2006

WK-EUREKA

Winzler and Kelly
633 Third Street
Eureka, CA 95501

Order No.: 0603432

Invoice No.: 57316

PO No.:

ELAP No. 1247-Expires July 2006

Attn: Colleen Ellis

RE: 00142803.206, BLFP

SAMPLE IDENTIFICATION

Fraction Client Sample Description

01A	MW-14
01D	MW-14
02A	MW-11
02D	MW-11
03A	MW-13
03D	MW-13
04A	MW-12
04D	MW-12
05A	QCTB

ND = Not Detected at the Reporting Limit

Limit = Reporting Limit

All solid results are expressed on a wet-weight basis unless otherwise noted.

REPORT CERTIFIED BY

Colleen Blackstone

Laboratory Supervisor(s)

T. Shue

QA Unit

Jesse G. Chaney, Jr.

Jesse G. Chaney, Jr.
Laboratory Director

CLIENT: Winzler and Kelly
Project: 00142803.206, BLFP
Lab Order: 0603432

CASE NARRATIVE

All samples submitted for a silica gel cleanup were initially analyzed for diesel/motor oil. The samples showing no detectable levels of the analytes were not subjected to the cleanup procedure.

TPH as Diesel/Motor Oil w/ Silica Gel Cleanup:

The relative percent differences (RPDs) for the laboratory control samples were above the acceptance limits for diesel and motor oil. This indicates that the results could be variable. Since there were no detectable levels of the analytes in the sample, the data were accepted.

TPH as Diesel/Motor Oil:

The relative percent difference (RPD) for the laboratory control samples was above the acceptance limit for diesel. This indicates that the results could be variable. Since there were no detectable levels of analyte in the samples, the data were accepted.

BTEX:

The surrogate recovery for sample MW-13 was below the lower acceptance limit. The response of the reporting limit standard was such that the target analytes would have been detected even with the low recovery; therefore, the data were accepted.

The laboratory control sample (LCS) recoveries were above the upper acceptance limits for MTBE and the surrogate, cis-1,2-dichloroethylene. These recoveries indicate that the sample results may be erroneously high. There were no detectable levels of the target analytes in the samples; therefore, the data were accepted.

The relative percent difference (RPD) for the laboratory control samples was above the acceptance limit for MTBE. This indicates that the results could be variable. Since there were no detectable levels of analyte in the samples, the data were accepted.

Date: 31-Mar-06
WorkOrder: 0603432

ANALYTICAL REPORT

Client Sample ID: MW-14
Lab ID: 0603432-01A

Received: 3/16/06

Collected: 3/14/06 12:20

Test Name: BTEX

Reference: EPA 5030/EPA 8021B

<u>Parameter</u>	<u>Result</u>	<u>Limit</u>	<u>Units</u>	<u>DF</u>	<u>Extracted</u>	<u>Analyzed</u>
MTBE	ND	3.0	µg/L	1.0		3/20/06
Benzene	ND	0.50	µg/L	1.0		3/20/06
Toluene	ND	0.50	µg/L	1.0		3/20/06
Ethylbenzene	ND	0.50	µg/L	1.0		3/20/06
m,p-Xylene	ND	0.50	µg/L	1.0		3/20/06
o-Xylene	ND	0.50	µg/L	1.0		3/20/06
Surrogate: Cis-1,2-Dichloroethylene	99.2	85-115	% Rec	1.0		3/20/06

Test Name: TPH as Gasoline

Reference: EPA 5030/GCFID(LUFT)/EPA 8015B

<u>Parameter</u>	<u>Result</u>	<u>Limit</u>	<u>Units</u>	<u>DF</u>	<u>Extracted</u>	<u>Analyzed</u>
TPHC Gas (C6-C14)	ND	50	µg/L	1.0		3/20/06

Client Sample ID: MW-14
Lab ID: 0603432-01D

Received: 3/16/06

Collected: 3/14/06 12:20

Test Name: TPH as Diesel/Motor Oil

Reference: EPA 3510/GCFID(LUFT)/EPA 8015B

<u>Parameter</u>	<u>Result</u>	<u>Limit</u>	<u>Units</u>	<u>DF</u>	<u>Extracted</u>	<u>Analyzed</u>
TPHC Diesel (C12-C22)	ND	50	µg/L	1.0	3/23/06	3/24/06
TPHC Motor Oil	ND	170	µg/L	1.0	3/23/06	3/24/06

Client Sample ID: MW-11
Lab ID: 0603432-02A

Received: 3/16/06

Collected: 3/14/06 14:11

Test Name: BTEX

Reference: EPA 5030/EPA 8021B

<u>Parameter</u>	<u>Result</u>	<u>Limit</u>	<u>Units</u>	<u>DF</u>	<u>Extracted</u>	<u>Analyzed</u>
MTBE	ND	3.0	µg/L	1.0		3/20/06
Benzene	ND	0.50	µg/L	1.0		3/20/06
Toluene	ND	0.50	µg/L	1.0		3/20/06
Ethylbenzene	ND	0.50	µg/L	1.0		3/20/06
m,p-Xylene	ND	0.50	µg/L	1.0		3/20/06
o-Xylene	ND	0.50	µg/L	1.0		3/20/06
Surrogate: Cis-1,2-Dichloroethylene	98.4	85-115	% Rec	1.0		3/20/06

Test Name: TPH as Gasoline

Reference: EPA 5030/GCFID(LUFT)/EPA 8015B

<u>Parameter</u>	<u>Result</u>	<u>Limit</u>	<u>Units</u>	<u>DF</u>	<u>Extracted</u>	<u>Analyzed</u>
TPHC Gas (C6-C14)	ND	50	µg/L	1.0		3/20/06

Date: 31-Mar-06

WorkOrder: 0603432

ANALYTICAL REPORT

Client Sample ID: MW-11

Received: 3/16/06

Collected: 3/14/06 14:11

Lab ID: 0603432-02D

Test Name: TPH as Diesel/Motor Oil

Reference: EPA 3510/GCFID(LUFT)/EPA 8015B

<u>Parameter</u>	<u>Result</u>	<u>Limit</u>	<u>Units</u>	<u>DF</u>	<u>Extracted</u>	<u>Analyzed</u>
TPHC Diesel (C12-C22)	ND	50	µg/L	1.0	3/23/06	3/24/06
TPHC Motor Oil	ND	170	µg/L	1.0	3/23/06	3/24/06

Client Sample ID: MW-13

Received: 3/16/06

Collected: 3/14/06 15:58

Lab ID: 0603432-03A

Test Name: BTEX

Reference: EPA 5030/EPA 8021B

<u>Parameter</u>	<u>Result</u>	<u>Limit</u>	<u>Units</u>	<u>DF</u>	<u>Extracted</u>	<u>Analyzed</u>
MTBE	ND	3.0	µg/L	1.0		3/20/06
Benzene	ND	0.50	µg/L	1.0		3/20/06
Toluene	ND	0.50	µg/L	1.0		3/20/06
Ethylbenzene	ND	0.50	µg/L	1.0		3/20/06
m,p-Xylene	ND	0.50	µg/L	1.0		3/20/06
o-Xylene	ND	0.50	µg/L	1.0		3/20/06
Surrogate: Cis-1,2-Dichloroethylene	84.3	85-115	% Rec	1.0		3/20/06

Test Name: TPH as Gasoline

Reference: EPA 5030/GCFID(LUFT)/EPA 8015B

<u>Parameter</u>	<u>Result</u>	<u>Limit</u>	<u>Units</u>	<u>DF</u>	<u>Extracted</u>	<u>Analyzed</u>
TPHC Gas (C6-C14)	ND	50	µg/L	1.0		3/20/06

Client Sample ID: MW-13

Received: 3/16/06

Collected: 3/14/06 15:58

Lab ID: 0603432-03D

Test Name: TPH as Diesel/Motor Oil

Reference: EPA 3510/GCFID(LUFT)/EPA 8015B

<u>Parameter</u>	<u>Result</u>	<u>Limit</u>	<u>Units</u>	<u>DF</u>	<u>Extracted</u>	<u>Analyzed</u>
TPHC Diesel (C12-C22)	ND	50	µg/L	1.0	3/23/06	3/24/06
TPHC Motor Oil	ND	170	µg/L	1.0	3/23/06	3/24/06

Date: 31-Mar-06
WorkOrder: 0603432

ANALYTICAL REPORT

Client Sample ID: MW-12
Lab ID: 0603432-04A

Received: 3/16/06

Collected: 3/14/06 17:10

Test Name: BTEX

Reference: EPA 5030/EPA 8021B

<u>Parameter</u>	<u>Result</u>	<u>Limit</u>	<u>Units</u>	<u>DF</u>	<u>Extracted</u>	<u>Analyzed</u>
MTBE	ND	3.0	µg/L	1.0		3/20/06
Benzene	1.1	0.50	µg/L	1.0		3/20/06
Toluene	ND	0.50	µg/L	1.0		3/20/06
Ethylbenzene	ND	0.50	µg/L	1.0		3/20/06
m,p-Xylene	ND	0.50	µg/L	1.0		3/20/06
o-Xylene	ND	0.50	µg/L	1.0		3/20/06
Surrogate: Cis-1,2-Dichloroethylene	91.8	85-115	% Rec	1.0		3/20/06

Test Name: TPH as Gasoline

Reference: EPA 5030/GCFID(LUFT)/EPA 8015B

<u>Parameter</u>	<u>Result</u>	<u>Limit</u>	<u>Units</u>	<u>DF</u>	<u>Extracted</u>	<u>Analyzed</u>
TPHC Gas (C6-C14)	ND	50	µg/L	1.0		3/20/06

Client Sample ID: MW-12
Lab ID: 0603432-04D

Received: 3/16/06

Collected: 3/14/06 17:10

Test Name: TPH as Diesel/Motor Oil w/ Silica Gel Cleanup

Reference: EPA 3510/3630/GCFID(LUFT)/8015B

<u>Parameter</u>	<u>Result</u>	<u>Limit</u>	<u>Units</u>	<u>DF</u>	<u>Extracted</u>	<u>Analyzed</u>
TPHC Diesel (C12-C22)	ND	50	µg/L	1.0	3/24/06	3/30/06
TPHC Motor Oil	ND	170	µg/L	1.0	3/24/06	3/30/06

Client Sample ID: QCTB
Lab ID: 0603432-05A

Received: 3/16/06

Collected: 3/14/06 0:00

Test Name: BTEX

Reference: EPA 5030/EPA 8021B

<u>Parameter</u>	<u>Result</u>	<u>Limit</u>	<u>Units</u>	<u>DF</u>	<u>Extracted</u>	<u>Analyzed</u>
MTBE	ND	3.0	µg/L	1.0		3/20/06
Benzene	ND	0.50	µg/L	1.0		3/20/06
Toluene	ND	0.50	µg/L	1.0		3/20/06
Ethylbenzene	ND	0.50	µg/L	1.0		3/20/06
m,p-Xylene	ND	0.50	µg/L	1.0		3/20/06
o-Xylene	ND	0.50	µg/L	1.0		3/20/06
Surrogate: Cis-1,2-Dichloroethylene	87.8	85-115	% Rec	1.0		3/20/06

Test Name: TPH as Gasoline

Reference: EPA 5030/GCFID(LUFT)/EPA 8015B

<u>Parameter</u>	<u>Result</u>	<u>Limit</u>	<u>Units</u>	<u>DF</u>	<u>Extracted</u>	<u>Analyzed</u>
TPHC Gas (C6-C14)	ND	50	µg/L	1.0		3/20/06

North Coast Laboratories, Ltd.

Date: 31-Mar-06

CLIENT: Winzler and Kelly

Work Order: 0603432

Project: 00142803.206, BLFP

QC SUMMARY REPORT

Method Blank

Sample ID	MB-3/20/06	Batch ID: R40418	Test Code: BTXEW	Units: µg/L	Analysis Date 3/20/06 7:55:21 PM	Prep Date
Client ID:			Run ID: ORGC8_060320B		SeqNo: 580660	
Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
MTBE	1.009	3.0				
Benzene	ND	0.50				
Toluene	ND	0.50				
Ethylbenzene	ND	0.50				
m,p-Xylene	ND	0.50				
o-Xylene	ND	0.50				
Cis-1,2-Dichloroethylene	0.859	0.10	1.00	0	85.9%	85 115 0

Sample ID	MB-15414	Batch ID: 15414	Test Code: SGTPDMW	Units: µg/L	Analysis Date 3/30/06 7:21:09 PM	Prep Date 3/24/06
Client ID:			Run ID: ORGC5_060330A		SeqNo: 583084	
Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
TPHC Diesel (C12-C22)	40.37	50				
TPHC Motor Oil	34.27	170				

Sample ID	MB-3/20/06	Batch ID: R40402	Test Code: TPHCGW	Units: µg/L	Analysis Date 3/20/06 7:55:21 PM	Prep Date
Client ID:			Run ID: ORGC8_060320A		SeqNo: 580520	
Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
TPHC Gas (C6-C14)	ND	50				

Sample ID	MB-15408	Batch ID: 15408	Test Code: TPHDMW	Units: µg/L	Analysis Date 3/24/06 12:24:25 AM	Prep Date 3/23/06
Client ID:			Run ID: ORGC7_060323A		SeqNo: 581470	
Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
TPHC Diesel (C12-C22)	ND	50				
TPHC Motor Oil	43.28	170				

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

North Coast Laboratories, Ltd.

Date: 31-Mar-06

CLIENT: Winzler and Kelly

Work Order: 0603432

Project: 00142803.206, BLFP

QC SUMMARY REPORT

Laboratory Control Spike

Sample ID	LCS-06179	Batch ID: R40418	Test Code: BTXEW	Units: µg/L	Analysis Date	3/20/06 4:25:29 PM	Prep Date				
Client ID:			Run ID: ORGC8_060320B		SeqNo: 580658						
Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
MTBE	46.28	3.0	40.0	0	116%	85	115	0			S
Benzene	5.457	0.50	5.00	0	109%	85	115	0			
Toluene	5.515	0.50	5.00	0	110%	85	115	0			
Ethylbenzene	5.548	0.50	5.00	0	111%	85	115	0			
m,p-Xylene	11.16	0.50	10.0	0	112%	85	115	0			
o-Xylene	5.644	0.50	5.00	0	113%	85	115	0			
Cis-1,2-Dichloroethylene	1.17	0.10	1.00	0	117%	85	115	0			S

Sample ID	LCSD-06179	Batch ID: R40418	Test Code: BTXEW	Units: µg/L	Analysis Date 3/21/06 2:11:11 AM		Prep Date					
Client ID:			Run ID: ORGC8_060320B	SeqNo: 580671								
	Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
	MTBE	37.62	3.0	40.0	0	94.0%	85	115	46.3	20.6%	15	R
	Benzene	5.161	0.50	5.00	0	103%	85	115	5.46	5.57%	15	
	Toluene	5.193	0.50	5.00	0	104%	85	115	5.52	6.00%	15	
	Ethylbenzene	5.223	0.50	5.00	0	104%	85	115	5.55	6.03%	15	
	m,p-Xylene	10.51	0.50	10.0	0	105%	85	115	11.2	5.97%	15	
	o-Xylene	5.204	0.50	5.00	0	104%	85	115	5.64	8.10%	15	
	Cis-1,2-Dichloroethylene	1.12	0.10	1.00	0	112%	85	115	1.17	4.68%	15	

Sample ID	LCS-15414	Batch ID: 15414	Test Code: SGTPDMW	Units: µg/L	Analysis Date	3/30/06 5:25:17 PM	Prep Date	3/24/06				
Client ID:			Run ID: ORGC5_060330A		SeqNo: 583082							
Analyte		Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPHC Diesel (C12-C22)		332.7	50	500	0	66.5%	46	91	0			
TPHC Motor Oil		1,718	170	2,000	0	85.9%	48	113	0			

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank

CLIENT: Winzler and Kelly
Work Order: 0603432
Project: 00142803.206, BLFP

QC SUMMARY REPORT
Laboratory Control Spike Duplicate

Sample ID	LCSD-15414	Batch ID: 15414	Test Code: SGTPDMW	Units: µg/L	Analysis Date	3/30/06 5:48:21 PM	Prep Date	3/24/06			
Client ID:		Run ID:	ORGC5_060330A	SeqNo:	583083						
Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPHC Diesel (C12-C22)	411.7	50	500	0	82.3%	46	91	333	21.2%	15	R
TPHC Motor Oil	833.2	170	1,000	0	83.3%	48	113	1,720	69.3%	15	R
Sample ID	LCS-06180	Batch ID: R40402	Test Code: TPHCGW	Units: µg/L	Analysis Date	3/20/06 6:11:13 PM	Prep Date				
Client ID:		Run ID:	ORGC8_060320A	SeqNo:	580518						
Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPHC Gas (C6-C14)	523.1	50	500	0	105%	85	115	0			
Sample ID	LCSD-06180	Batch ID: R40402	Test Code: TPHCGW	Units: µg/L	Analysis Date	3/21/06 2:45:07 AM	Prep Date				
Client ID:		Run ID:	ORGC8_060320A	SeqNo:	580531						
Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPHC Gas (C6-C14)	504.2	50	500	0	101%	85	115	523	3.68%	15	
Sample ID	LCS-15408	Batch ID: 15408	Test Code: TPHDMW	Units: µg/L	Analysis Date	3/23/06 10:22:06 PM	Prep Date	3/23/06			
Client ID:		Run ID:	ORGC7_060323A	SeqNo:	581466						
Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPHC Diesel (C12-C22)	474.4	50	500	0	94.9%	72	124	0			
TPHC Motor Oil	1,246	170	1,000	0	125%	71	139	0			
Sample ID	LCSD-15408	Batch ID: 15408	Test Code: TPHDMW	Units: µg/L	Analysis Date	3/23/06 10:42:46 PM	Prep Date	3/23/06			
Client ID:		Run ID:	ORGC7_060323A	SeqNo:	581467						
Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
TPHC Diesel (C12-C22)	567.7	50	500	0	114%	72	124	474	17.9%	15	R
TPHC Motor Oil	1,385	170	1,000	0	139%	71	139	1,250	10.6%	15	

Qualifiers: ND - Not Detected at the Reporting Limit S - Spike Recovery outside accepted recovery limits B - Analyte detected in the associated Method Blank
J - Analyte detected below quantitation limits R - RPD outside accepted recovery limits

Chain of Custody

5680 West End Road • Arcata • CA 95521-9202
707-822-4649 Fax 707-822-6831

Attention: Coleman Ellis

Results & Invoice to: Winzler & Kelly
Address: 633 Third St

El Cerrito, CA 94530

Phone:

Copies of Report to:

Sampler (Sign & Print): Heidi

PROJECT INFORMATION

Project Number: 00145803.206

Project Name: BLP

Purchase Order Number:

[illegible][illegible]

LABORATORY NUMBER:

TAT: ☒ 24 Hr ☐ 48 Hr ☐ 5 Day ☐ 5-7 Day

☒ STD (2-3 wk) ☐ Other:

PRIOR AUTHORIZATION IS REQUIRED FOR RUSHES

REPORTING REQUIREMENTS: State Forms ☐

Preliminary: FAX ☐ Verbal ☐ BY: / /Final Report: FAX ☐ Verbal ☐ By: / /

CONTAINER CODES: 1—1/2 gal. pl; 2—250 ml pl;

3—500 ml pH; 4—1 L Nalgene; 5—250 ml BG;
6—500 ml BG; 7—1 L BG; 8—1 L cg; 9—40 ml VOA;
10—125 ml VOA; 11—4 oz glass jar; 12—8 oz glass jar;
13—brass tube; 14—other

PRESERVATIVE CODES: a—HNO₃; b—HCl; c—H₂SO₄.

d— Na_2SO_3 ; e— NaOH ; f— $\text{C}_2\text{H}_3\text{O}_2\text{Cl}$; g—other

SAMPLE CONDITION/SPECIAL INSTRUCTIONS

Report in EDR or Global ID

1060230814

SAMPLE DISPOSAL

☐ NCL Disposal of Non-Contaminated

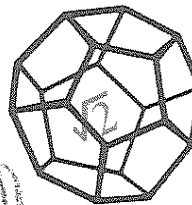
☐ Return ☐ Pickup

CHAIN OF CUSTODY SEALS Y/N/NA

SHIPPED VIA: UPS Air-Ex Fed-Ex Bus Hand

***MATRIX:** DW=Drinking Water; Eff=Effluent; Inf=Influent; SW=Surface Water; GW=Ground Water; S=Soil; O=Other.

ALL CONTAMINATED NON-AQUEOUS SAMPLES WILL BE RETURNED TO CLIENT



**NORTH COAST
LABORATORIES LTD.**

RECEIVED
MAR 30 2006

March 29, 2006

WK-EUREKA

Winzler and Kelly
633 Third Street
Eureka, CA 95501

Order No.: 0603399

Invoice No.: 57218

PO No.:

ELAP No. 1247-Expires July 2006

Attn: Pat Kaspari

RE: 03142802.11102, BLFP

SAMPLE IDENTIFICATION

Fraction Client Sample Description

01A	Drum #1
02A	Drum #2
03A	Drum #3
04A	Drum #4
05A	Drum #5
06A	Drum #6

ND = Not Detected at the Reporting Limit

Limit = Reporting Limit

All solid results are expressed on a wet-weight basis unless otherwise noted.

REPORT CERTIFIED BY

Laboratory Supervisor(s)

QA Unit

Jesse G. Chaney, Jr.
Laboratory Director



CLIENT: Winzler and Kelly
Project: 03142802.11102, BLFP
Lab Order: 0603399

CASE NARRATIVE

PCP/TCP:

The positive result for sample Drum #6 was confirmed on second column. Suggest GC-MS.

Date: 29-Mar-06
WorkOrder: 0603399

ANALYTICAL REPORT

Client Sample ID: Drum #1
Lab ID: 0603399-01A

Received: 3/15/06

Collected: 3/15/06 11:40

Test Name: Penta- and Tetrachlorophenol

Reference: Canadian Pulp Report

<u>Parameter</u>	<u>Result</u>	<u>Limit</u>	<u>Units</u>	<u>DF</u>	<u>Extracted</u>	<u>Analyzed</u>
Tetrachlorophenol	ND	1.0	µg/L	1.0	3/22/06	3/23/06
Pentachlorophenol	ND	0.30	µg/L	1.0	3/22/06	3/23/06
Surrogate: Dibromophenol	88.7	66.5-118	% Rec	1.0	3/22/06	3/23/06

Client Sample ID: Drum #2
Lab ID: 0603399-02A

Received: 3/15/06

Collected: 3/15/06 11:46

Test Name: Penta- and Tetrachlorophenol

Reference: Canadian Pulp Report

<u>Parameter</u>	<u>Result</u>	<u>Limit</u>	<u>Units</u>	<u>DF</u>	<u>Extracted</u>	<u>Analyzed</u>
Tetrachlorophenol	ND	1.0	µg/L	1.0	3/22/06	3/23/06
Pentachlorophenol	ND	0.30	µg/L	1.0	3/22/06	3/23/06
Surrogate: Dibromophenol	91.6	66.5-118	% Rec	1.0	3/22/06	3/23/06

Client Sample ID: Drum #3
Lab ID: 0603399-03A

Received: 3/15/06

Collected: 3/15/06 11:52

Test Name: Penta- and Tetrachlorophenol

Reference: Canadian Pulp Report

<u>Parameter</u>	<u>Result</u>	<u>Limit</u>	<u>Units</u>	<u>DF</u>	<u>Extracted</u>	<u>Analyzed</u>
Tetrachlorophenol	ND	1.0	µg/L	1.0	3/22/06	3/23/06
Pentachlorophenol	ND	0.30	µg/L	1.0	3/22/06	3/23/06
Surrogate: Dibromophenol	90.7	66.5-118	% Rec	1.0	3/22/06	3/23/06

Client Sample ID: Drum #4
Lab ID: 0603399-04A

Received: 3/15/06

Collected: 3/15/06 12:05

Test Name: Penta- and Tetrachlorophenol

Reference: Canadian Pulp Report

<u>Parameter</u>	<u>Result</u>	<u>Limit</u>	<u>Units</u>	<u>DF</u>	<u>Extracted</u>	<u>Analyzed</u>
Tetrachlorophenol	ND	1.0	µg/L	1.0	3/22/06	3/23/06
Pentachlorophenol	ND	0.30	µg/L	1.0	3/22/06	3/23/06
Surrogate: Dibromophenol	90.5	66.5-118	% Rec	1.0	3/22/06	3/23/06

Date: 29-Mar-06

WorkOrder: 0603399

ANALYTICAL REPORT

Client Sample ID: Drum #5

Received: 3/15/06

Collected: 3/15/06 12:15

Lab ID: 0603399-05A

Test Name: Penta- and Tetrachlorophenol

Reference: Canadian Pulp Report

<u>Parameter</u>	<u>Result</u>	<u>Limit</u>	<u>Units</u>	<u>DF</u>	<u>Extracted</u>	<u>Analyzed</u>
Tetrachlorophenol	ND	1.0	µg/L	1.0	3/22/06	3/23/06
Pentachlorophenol	ND	0.30	µg/L	1.0	3/22/06	3/23/06
Surrogate: Dibromophenol	88.3	66.5-118	% Rec	1.0	3/22/06	3/23/06

Client Sample ID: Drum #6

Received: 3/15/06

Collected: 3/15/06 12:27

Lab ID: 0603399-06A

Test Name: Penta- and Tetrachlorophenol

Reference: Canadian Pulp Report

<u>Parameter</u>	<u>Result</u>	<u>Limit</u>	<u>Units</u>	<u>DF</u>	<u>Extracted</u>	<u>Analyzed</u>
Tetrachlorophenol	ND	1.0	µg/L	1.0	3/22/06	3/23/06
Pentachlorophenol	23	1.2	µg/L	4.0	3/22/06	3/27/06
Surrogate: Dibromophenol	89.4	66.5-118	% Rec	1.0	3/22/06	3/23/06



North Coast Laboratories, Ltd.

Date: 29-Mar-06

CLIENT: Winzler and Kelly

Work Order: 0603399

Project: 03142802.11102, BLFP

QC SUMMARY REPORT

Method Blank

Sample ID	MB-15397	Batch ID:	15397	Test Code:	PCPTW	Units:	µg/L	Analysis Date	3/23/06 5:09:14 PM	Prep Date	3/22/06	
Client ID:		Run ID:	ORG04_060323A	SeqNo:	582318							
Analyte		Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Tetrachlorophenol		ND	1.0									
Pentachlorophenol		ND	0.30									
Dibromophenol		3.80	0.10	5.00	0	75.9%	67	118	0			

Qualifiers:

ND - Not Detected at the Reporting Limit
 J - Analyte detected below quantitation limits
 S - Spike Recovery outside accepted recovery limits
 R - RPD outside accepted recovery limits
 B - Analyte detected in the associated Method Blank

North Coast Laboratories, Ltd.

Date: 29-Mar-06

CLIENT: Winzler and Kelly

Work Order: 0603399

Project: 03142802.11102, BLFP

QC SUMMARY REPORT

Laboratory Control Spike

Sample ID	LCS-15397	Batch ID: 15397	Test Code: PCPTW	Units: µg/L	Analysis Date	3/23/06 5:29:58 PM	Prep Date	3/22/06			
Client ID:			Run ID: ORGC4_060323A		SeqNo: 582319						
Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Tetrachlorophenol	4.643	1.0	5.00	0	92.9%	69	112	0			
Pentachlorophenol	1.343	0.30	1.50	0	89.6%	65	107	0			
Dibromophenol	4.50	0.10	5.00	0	90.0%	67	118	0			

Sample ID	LCSD-15397	Batch ID: 15397	Test Code: PCPTW	Units: µg/L	Analysis Date	3/23/06 5:50:44 PM	Prep Date	3/22/06			
Client ID:			Run ID: ORGC4_060323A		SeqNo: 582320						
Analyte	Result	Limit	SPK value	SPK Ref Val	% Rec	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Tetrachlorophenol	4.524	1.0	5.00	0	90.5%	69	112	4.64	2.59%	15	
Pentachlorophenol	1.331	0.30	1.50	0	88.7%	65	107	1.34	0.954%	15	
Dibromophenol	4.43	0.10	5.00	0	88.6%	67	118	4.50	1.62%	15	

Qualifiers: ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

B - Analyte detected in the associated Method Blank



5680 West End Road • Arcata • CA 95521-9202
707-822-4649 Fax 707-822-6831

Chain of Custody

10

LABORATORY NUMBER:

Attention:

Results & Invoice to:

Address: 633 Third Street, San Francisco, CA 94107

Evrika CA 95501

Phone:

Copies of Report to:

Sampler (Sign & Print):

PROJECT INFORMATION

Project Number: 03142802, 11102

Project Name: BLP

Purchase Order Number:

RELINQUISHED BY (Sign & Print)	DATE/TIME	RECEIVED BY (Sign)	DATE/TIME
Paula Ann	3-15-06	Kelly Thompson	3/15/06
			1400

[illegible]

RECEIVED BY (Sign)	DATE/TIME
<i>[Signature]</i>	3/5/12
	1400

TAI: ☐ 24 Hr ☐ 48 Hr ☐ 5 Day ☐ 5-7 Day
☒ STD (2-3 Wk) ☐ Other:

PRIOR AUTHORIZATION IS REQUIRED FOR RUSHES

REPORTING REQUIREMENTS: State Forms ☐Preliminary: FAX ☐ Verbal ☐ By: / /Final Report: FAX ☐ Verbal ☐ By: / /

CONTAINER CODES: 1—1/2 gal. pl; 2—250 ml pl; 3—500 ml pl; 4—1 L Nalgene; 5—250 ml BG; 6—500 ml BG; 7—1 L BG; 8—1 L cg; 9—40 ml VOA; 10—125 ml VOA; 11—4 oz glass jar; 12—8 oz glass jar; 13—brass tube; 14—other

PRESERVATIVE CODES: a— HNO_3 ; b— HCl ; c— H_2SO_4 ; d— $\text{Na}_2\text{S}_2\text{O}_3$; e— NaOH ; f— $\text{C}_2\text{H}_5\text{O}_2\text{Cl}$; g—other

SAMPLE CONDITION/SPECIAL INSTRUCTIONS

SAMPLE DISPOSAL

☐ **NCL Disposal of Non-Contaminated**☐ Return ☐ Pickup

CHAIN OF CUSTODY SEALS Y/N/NA

SHIPPED VIA: UPS Air-Ex Fed-Ex Bus Hand

***MATRIX:** DW=Drinking Water; Eff=Effluent; Inf=Influent; SW=Surface Water; GW=Ground Water; S=Soil; O=Other.

ALL CONTAMINATED NON-AQUEOUS SAMPLES WILL BE RETURNED TO CLIENT

Appendix D

Standard Operating Procedures

WINZLER & KELLY CONSULTING ENGINEERS

STANDARD OPERATING PROCEDURES GROUNDWATER LEVEL MEASUREMENTS AND FREE PHASE HYDROCARBON MEASUREMENTS

1. Objective

To establish accepted procedures for detecting free-phase hydrocarbons and measuring groundwater levels in monitoring wells.

2. Background

Any time water levels are required to determine the groundwater flow gradient or flow direction, water levels are collected. Wells are tested for free-phase hydrocarbons prior to insertion of electronic water level probes or purge pumps the first time a well is sampled and in any well that has a history of free-phase hydrocarbons.

3. Personnel Required and Responsibilities

Project Manager: The Project Manager (PM) is responsible for ensuring that field personnel have been trained in these procedures and for verifying that water levels have been collected in compliance with this SOP.

Field Technician: The Field Technician is responsible for complying with this SOP, including determining if there are free phase hydrocarbons in the well, the thickness (if it exists) and the stabilized water level in the well.

4. Equipment Required

- Water level/free phase hydrocarbon indicator probe or pastes
- Tape measure
- Water Level Data Form/pencil
- Watch
- Disposable gloves
- Distilled water
- Alconox soap
- Containers to hold rinsate water
- Site Safety Plan and Hospital Map
- Keys to wells
- Tools to open wells

5. Procedure

After reviewing the Site Safety Plan and determining the type and concentrations of contaminants that may be present on site, the field personnel will don the proper level of personal protection prior to opening any wells.

Open all monitoring wells to be measured and remove expandable caps. Allow wells to equilibrate 5 to 15 minutes. Record time and visual observations regarding well access, condition, security, etc on water level data sheet.

5a. Alternative procedure for electronic water-level/free-phase hydrocarbon indicator

- Decontaminate probe with potable water and Alconox mix. Rinse with distilled water.
- Lower probe into the well and determine the presence of any free-phase hydrocarbons. The probe will emit a continuous sound if free product is present. If no product is present, the probe will make an oscillating (beeping) sound when it encounters water. Record the depth of free-phase hydrocarbons on the water level data sheet. If no free-phase hydrocarbons are present, record the water depth. **DO NOT SUBMERGE THE PROBE THROUGH THE FLOATING PRODUCT LAYER.**
- Gradient calculations shall then be performed by calculation of the groundwater elevation by:
 - $GW\ ELEV = (TOC) - (\text{depth to water})$.
 - TOC indicates top of casing elevation as surveyed.
 - If free-phase hydrocarbons are indicated, determine the depth to water using a steel measuring tape and water indicator paste, by the procedure below.

5b. Alternative procedure for product and water indicator pastes

- Decontaminate tape measure.
- Place **product** indicator paste on bottom two feet of tape measure.
- Lower tape measure into well. Note depth to which the end of the tape is lowered relative to the point of survey mark on the top of the well casing.
- Withdraw the tape. If paste has changed color, free-phase hydrocarbons are present. Calculate depth to the floating layer by:
 - $\text{Depth to Product} = (\text{depth to which tape lowered into well}) - (\text{length of product indicator paste discoloration})$.
- Remove product indicator paste with paper towel and decontaminate tape measure.
- Apply **water** indicator paste on bottom two feet of tape measure.
- Lower tape into well. Note depth to which end of tape is lowered.
- Withdraw the tape. Calculate the depth to water by:
 - $\text{Depth to Water} = (\text{depth to which tape lowered into well}) - (\text{length of water indicator paste discoloration})$.
- Obtain the depth to groundwater level readings from the point of survey mark, or from the North side of the top of the casing, if no point of survey mark is present. Readings will be measured to the nearest 0.01 foot. Note time and readings on water level data sheet.
- Use the same measuring device to measure water levels in all wells to be used in the gradient calculation.

- Obtain depth to casing bottom for each well by submerging a tape measure until it reaches the bottom of the well. Readings will be measured to the nearest 0.01 foot. Note readings on data sheet. If sampling is not going to be completed at the site, close and lock all wells.
- Gradient calculations shall then be conducted by making water depth corrections for the presence of free product. First calculate the product thickness:
 - $\text{Product Thickness} = (\text{Depth to Water}) - (\text{Depth to Product})$.
 - Water elevations when free product is present shall then be calculated by:
 - $\text{GW ELEV} = (\text{TOC}) - (\text{Depth to Water}) - \text{SG}_{\text{product}} (\text{Product Thickness})$
 - On any site where monitoring will occur more than once, a free product sample will be collected and measured for specific gravity ($\text{SG}_{\text{product}}$). In the absence of the site specific free product specific gravity $\text{SG}_{\text{product}}$ shall be assumed to be 0.78.

WINZLER & KELLY CONSULTING ENGINEERS

STANDARD OPERATING PROCEDURES for MONITORING WELL PURGING AND SAMPLING ACTIVITIES

1.0 OBJECTIVE

To establish accepted procedures for the purging and sampling groundwater from monitoring wells, to ensure that representative samples of formation water are collected by accepted methods.

1.1 Background

To obtain a representative groundwater sample from monitor wells, it is necessary to remove (purge) stagnant water from within and near the well prior to sampling. In general, three to seven casing volumes must be removed from the well prior to sampling, to provide a representative sample. Wells may be sampled after purging less than the minimum three volumes if well recharge rates are beyond reasonable time constraints. The specific method of well purging will be decided on a case by case basis, or as required by project specifications.

1.2 Personnel Required and Responsibilities

Project Manager: The Project Manager (PM) is responsible for ensuring that field personnel have been trained in the use of these procedures and for verifying that monitoring well purging and sampling activities are performed in compliance with these SOP's.

Field Technician: The Field Technician is responsible for complying with these SOP's, including the purging and sampling of monitor wells, the safe containerization of extracted waters, the documentation of field procedures, and the handling of samples..

2.0 WELL PURGING ACTIVITIES

2.1 Equipment Required

- Bottom-filling bailer, suction air pump, air-lift pump, gas operated (bladder) pump, submersible pump, or other pumping device
- pH meter
- Conductivity/Temperature Meter
- Water Level Indicator
- Well Sampling Data Sheet
- Indelible marker
- Disposable gloves
- Containers to hold extracted water (as required)

2.2. Purging Procedure

Prior to groundwater sampling, each monitoring well will be purged as described below. Prior to insertion into each well, all equipment will be either decontaminated (following W&K Decontamination procedures) or will be deemed clean or previously unused by the manufacturer.

- Open all monitoring wells to be purged and allow to equilibrate 5 to 15 minutes. Record time and visual observations regarding well access, condition, security, etc. in log book.
- Obtain depth to groundwater level readings according to Winzler & Kelly Standard Operating Procedures for Groundwater Level measurements and Free Phase Hydrocarbon Measurements. Record time and readings on the Well Level Measurement Data Sheet.
- Calculate the volume of standing water in each monitoring well. Record the volume calculated for each well on the Well Sampling Data Sheet.
- Begin purging the well by removing water from the well and collecting in a calibrated container (i.e., 5-gallon bucket marked in 1-gallon increments). The depth, or interval, from which the water is being purged should be noted on the data sheet.
- Obtain readings of field parameters (pH, conductivity, temperature, and turbidity) and make visual observations of color/odor/turbidity at selected intervals (i.e., every gallon, every five gallons, etc.) throughout the purging process. Depending on the calculated volume and the expected number of gallons to be purged, a minimum of five readings should be collected. Record the time, readings, and visual comments on the Purge Data Sheet.
- Continue purging until at least three (minimum) to four well volumes have been removed and the field parameters stabilize to within:

pH	~0.1
conductivity	~10%
turbidity	~10%
temperature	~1°
- Do not exceed seven well volumes.
- Obtain a final depth to groundwater level measurement prior to collection of the groundwater sample and note the reading and time on the Well Level Measurement Data Sheet. Be sure that the measurement probe has been thoroughly decontaminated prior to insertion into each well. Note any qualitative comments regarding recharge rate of each well, and calculate the percent of the original water column that has recovered at the time of the final depth measurement. It is ideal to attain a minimum of 80% water level recovery prior to sampling, if time constraints allow. Very slow recharge rates may not allow purging the minimum three volumes or 80% recovery; lesser volumes may be used for sampling, as needed and documented.
- Collect a groundwater sample following the directions below under Section 3.0.

- Containerize all purge water and decontamination water in 55-gallon drums. Use yellow indelible markers (storeroom supply) to label all drums on the side with date, contents, origin and other pertinent information. Avoid marking the tops of drums with black marker, such marks are temporary and will soon fade/rust. Note the number, condition and location of drums on site in the field notes.

3.0 WELL SAMPLING ACTIVITIES

3.1 Equipment Required

- Disposable bailer (previously unused) *
- Bottom emptying device (sampling port)
- Monofilament nylon line (min 40-lb test)
- Monitor Well Purge & Sample Data Sheets
- Sample containers (preserved, as required) - provided by the laboratory
- Sample labels
- Indelible marker
- Disposal gloves
- Decontamination soap (Alconox)
- Distilled water for equipment decontamination.

*A variety of sampling techniques are available for the collection of groundwater samples. Except where otherwise required, W&K only utilizes disposable polyethylene bailers to collect groundwater samples.

3.2. Sampling Procedure

Prior to collecting a groundwater sample from a monitoring well, each well must be properly purged in accordance with W&K's SOP for Monitoring Well Purging Activities (See Section 2.0 above), including the measurement of the final water level and documentation of recharge.

- Water from the desired screen interval will be collected by lowering the previously unused disposable, polyethylene, bottom-filling bailer into the well.
- When bailer is completely full, carefully retract the bailer from the well casing.
- Using a previously unused, new, bottom-emptying device, to minimize agitation of the water, transfer the water from the bailer to the sample containers.
- When sampling for volatile constituents (VOA's), the water samples will be collected in 40-ml glass vials (preserved as required by the analyses requested). Precautions will be taken to prevent capturing air bubbles in the vials.
- Upon filling, each vial will be immediately capped with a Teflon septum and plastic screw cap. The vial will be checked for air bubbles by inverting and gently tapping the vial. If any bubbles are visible, the vial will be refilled and confirmed to be free of any air bubbles.

- At a minimum, all samples will be labeled with the following information:

Sample ID	Date and Time Sample Collected
Location	Sampler's Initials
Project Number	Analyses Requested
- Sample information will be documented on the Chain-of-Custody form.
 All samples will be placed in an ice chest, chilled to a temperature of 4°C. The ice chest will remain in the custody of the sampler until it is transferred to the courier service for delivery at the analytical laboratory for analyses. Any and all transfer of sample custody must be documented on the Chain-of-Custody form with the name, signature, affiliation, date and time of the persons releasing and receiving custody of the samples.
- Upon completion of the sampling activities, each well shall be closed and secured by replacing the well cap and securing the lock.
- Dispose of gloves, bailers, bottom-emptying devices, and bailing line after each use.

Appendix E

Field Notes

MEMORANDUM

TO: Carlos Acu
FROM: Amanda Piscitelli
DATE: February 28, 2006
RE: **Sampling at Blue Lake Forest Products**
JOB #: 00-142803-206

Carlos,

Here are the instructions for the sampling event for March 2006 at Blue Lake Forest Products.

- Open wells MW-11, MW-12, MW-13, and MW-14. NOTE: Sample in the following order, from cleanest to dirtiest: Monitoring well MW-14 and MW-11, then MW-13, and finally MW-12.
- Measure and record depth to water and dissolved oxygen in all wells.
- Purge all wells in accordance with our SOPs.
- Please inventory drums stored on-site and determine level in each purge water drum.
- Collect water samples from all wells as follows:
 1. Fill 3, 40-ml vials preserved with HCl and 2, 1L amber glass with water from each well.
 2. Bring either a trip blank or fill 1, 40-ml vial preserved with HCl with distilled water and label it as a field blank.
 3. Forward all VOA vials to North Coast Laboratories for standard turnaround time to be analyzed for:
 - TPH-G and BTEX by EPA Method 8021/5030
 - TPH-D and TPH-MO by EPA Method 3510 w/ silica gel cleanup.
- Request Geotracker Data format from the Lab. Global ID = T0602300143

I have attached a site map for your reference. Please see me if you have any questions.

FILE: J:\CAD\JOBS\2000\001\2803\dwg\428c204103.dwg DATE: Jan 10 05 @ 3:34pm

LEGEND

MW-13



MONITORING WELL

LIMITS OF
EXCAVATION

SD



STORM DRAIN

WELL

SCALE: 1" = 30'±

NOT A PRODUCT
OF SURVEY

PAVED AREA

3.5' RETAINING
WALL

U.G.T. HOLD
#2,3,4

MW-12

TANK

3

TANK

4

TANK

2

MW-11

MW-14

PAVED AREA

DIP TANK BLDG.

WELL A

WELL
AW-1

U.S.T. HOLD #1

MONITORING WELL LOCATIONS

U.S.T. HOLD #1, 2, 3, 4

BLUE LAKE FOREST PRODUCTS
1589 GLENDALE DR., ARCATA, CA.

FIGURE 3



WINZLER & KELLY



By CA Date 3-14-06 Client BLEP Sheet No. _____ of _____
Subject Monitoring Job No. _____

- Arrived on site
- located the wells, except MW-11, I think that MW-11 is buried under a pile of dirt. I found it under the pile of dirt
- opened up all the wells.
- Decon water meter and purge pump upon arrival and between wells
- began purging from cleanliness to dirties
- delivered a new drum and emptied the drum with the clean water as instructed
- used the purge pump to pump all the wells
- located three more drums on the West side of the building; they were labeled soil, but they are full of water.
- Waited for the wells to recharge to at least 80% before collecting samples
- Stored samples in a cooler with blue ice

MW-14	12:20
MW-11	2:11
MW-13	3:58
MW-12	5:10

- Secured the wells and drums

PROJECT NAME: Blue Lake Forest
PROJECT NUMBER: 00142803.206

TODAY'S DATE: 3-14-06
FIELD PERSONNEL:

[illegible]

WINZLER & KELLY
Consulting Engineering

SUBJECT NAME: BLFP
PROJECT NUMBER: 00142803.206
WELL DESIGNATION: MW-14

PROJECT DATE: 3-14-06
SAMPLER: 3000
SAMPLE NUMBER MW-14

CONDITION OF WELL HEAD/VAULT/CAP & LOCK

- A. TOP OF CASING ELEVATION
B. DEPTH TO GROUNDWATER (initial) 5.77
C. DEPTH OF WELL
D. HEIGHT OF WATER COLUMN (C-B) MEASURED 25
E. GROUNDWATER ELEVATION (A-B) $25 - 5.77 = 19.23$

CASING DIAMETER: 2" ✓ 3" _____ 4" _____ OTHER _____

CALCULATED WELL VOLUME: $D \times V = \frac{19.23 \times .163 = 3.13 \text{ gal}}$

ODOR no SHEEN yes FLOATING PRODUCT THICKNESS no

PUMP TUPE: POLY BAILER _____ STAINLESS BAILER _____
ELECTRIC _____ OTHER _____

PUMP DEPTH:

TIME	GALLONS PURGED	NO. OF WELL VOLUMES	PH	TEMPERATURE (°F OR °C)	CONDUCTIVITY (mmhos/cm or µmhos/cm)	TURBIDITY (NTU or visual)
9:40	2	0.64	6.14	13.3	0.49 µs/cm	Cloudy
9:55	4	1.28	6.09	13.4	0.07 µs/cm	
10:09	6	1.92	6.06	13.8	0.07 µs/cm	
10:20	8	2.56	6.02	13.8	0.07 µs/cm	
10:31	8.50	2.72	6.0	13.9	205 µs/cm	
10:41	8.75	2.79	5.96	13.9	252 µs/cm	
10:51	9	2.88	5.95	13.9	252 µs/cm	
11:02	9.25	2.96	5.94	13.9	431 µs/cm	
11:12	9.50	3.04	5.94	13.9	430 µs/cm	

RECHARGE RATE (qualitative):

SAMPLER TYPE: TEFLON BAILER ☐ ACRYLIC BAILER ☐ DISPOSABLE BAILER ☐

SAMPLES COLLECTED: PRESERVED VOA'S _____ UNPRESERVED VOA'S _____
PRESERVED LITERS _____ UNPRESERVED LITERS _____
500ml PLASTIC BOTTLE WITH PRESERVATIVE FOR METALS:
FILTERED _____ UNFILTERED _____ OTHER _____

COMMENTS

WINZLER & KELLY

Consulting Engineering

SUBJECT NAME: BLFP
 PROJECT NUMBER: 00142803.206
 WELL DESIGNATION: MW-11

PROJECT DATE: 3-14-06
 SAMPLER: _____
 SAMPLE NUMBER: MW-11

CONDITION OF WELL HEAD/VAULT/CAP & LOCK

- A. TOP OF CASING ELEVATION _____
- B. DEPTH TO GROUNDWATER (initial) 3.77
- C. DEPTH OF WELL _____
- D. HEIGHT OF WATER COLUMN (C-B) 25 - 3.77 = 21.23 MEASURED 25
- E. GROUNDWATER ELEVATION (A-B) _____

CASING DIAMETER: 2" ☒ 3" _____ 4" _____ OTHER _____

CALCULATED WELL VOLUME: $D \times V = \underline{21.23 \times 1.163 = 3.46 \text{ gal}}$
 A. Volume (V) of 2" wall = 0.163 gal/ft
 B. Volume (V) of 4" wall = 0.653 gal/ft

ODOR _____ SHEEN _____ FLOATING PRODUCT THICKNESS _____

PUMP TYPE: POLY BAILER _____ STAINLESS BAILER _____
 ELECTRIC _____ OTHER _____

PUMP DEPTH:

TIME	GALLONS PURGED	NO. OF WELL VOLUMES	PH	TEMPERATURE (°F OR °C)	CONDUCTIVITY (mmhos/cm or µmhos/cm)	TURBIDITY (NTU or visual)
11:30	2	0.58	5.40	13.8	119.5 µS/cm	murky
11:44	4	1.16	5.45	14.4	66.9 µS/cm	
11:57	6	1.73	5.46	14.4	48.1 µS/cm	
12:07	8	2.31	5.44	14.2	48.9 µS/cm	
12:18	9	2.60	5.43	14.4	63.7 µS/cm	
12:30	9.5	2.75	5.42	14.3	46.5 µS/cm	
12:39	9.75	2.82	5.41	14.3	45.5 µS/cm	
12:48	10.	2.89	5.41	14.1	55.6 µS/cm	
12:58	10.25	2.96	5.41	14.1	55.5 µS/cm	
1:10	10.50	3.03	5.41	14.0	55.1 µS/cm	

RECHARGE RATE (qualitative): _____
 SAMPLER TYPE: TEFLON BAILER _____ ACRYLIC BAILER _____ DISPOSABLE BAILER _____

SAMPLES COLLECTOR: PRESERVED VOA'S _____ UNPRESERVED VOA'S _____
 PRESERVED LITERS _____ UNPRESERVED LITERS _____
 500ml PLASTIC BOTTLE WITH PRESERVATIVE FOR METALS:
 FILTERED _____ UNFILTERED _____ OTHER _____

COMMENTS _____

WINZLER & KELLY Consulting Engineering

SUBJECT NAME: BLFP
PROJECT NUMBER: 00142803.206
WELL DESIGNATION: MW-13

PROJECT DATE: 3-14-06
SAMPLER: _____
SAMPLE NUMBER: MW-13

CONDITION OF WELL HEAD/VAULT/CAP & LOCK

- A. TOP OF CASING ELEVATION _____
B. DEPTH TO GROUNDWATER (initial) 4.24
C. DEPTH OF WELL _____
D. HEIGHT OF WATER COLUMN (C-B) 22.20 - 4.24 = 17.96 MEASURED 22.20
E. GROUNDWATER ELEVATION (A-B) _____

CASING DIAMETER: 2" ☒ 3" _____ 4" _____ OTHER _____

CALCULATED WELL VOLUME: $D \times V = 17.96 \times 0.163 = 2.93 \text{ gal}$

- A. Volume (V) of 2" wall = 0.163 gal/ft
B. Volume (V) of 4" wall = 0.653 gal/ft

ODOR _____ SHEEN _____ FLOATING PRODUCT THICKNESS _____

PUMP TUPE: POLY BAILER _____ STAINLESS BAILER _____
ELECTRIC _____ OTHER _____

PUMP DEPTH:

TIME	GALLONS PURGED	NO. OF WELL VOLUMES	PH	TEMPERATURE (°F OR °C)	CONDUCTIVITY (mmhos/cm or µmhos/cm)	TURBIDITY (NTU or visual)
1:30	2	0.68	5.15	12.9	71.2 µs/cm	cloudy
1:43	4	1.37	5.26	13.3	71.3 µs/cm	
1:53	6	2.05	5.28	13.3	71.2 µs/cm	
2:05	8	2.73	5.27	13.3	70.7 µs/cm	
2:15	8.25	2.82	5.26	13.4	70.7 µs/cm	
2:25	8.50	2.90	5.30	13.6	71.3 µs/cm	
2:35	8.75	2.99	5.31	13.3	75.3 µs/cm	
2:47	9	3.07	5.31	13.2	74.8 µs/cm	

RECHARGE RATE (qualitative): _____
SAMPLER TYPE: TEFLON BAILER _____ ACRYLIC BAILER _____ DISPOSABLE BAILER _____

SAMPLES COLLECTER: PRESERVED VOA'S _____ UNPRESERVED VOA'S _____
PRESERVED LITERS _____ UNPRESERVED LITERS _____
500ml PLASTIC BOTTLE WITH PRESERVATIVE FOR METALS:
FILTERED _____ UNFILTERED _____ OTHER _____

COMMENTS _____

4-water
3 H₂O by shop

WINZLER & KELLY
Consulting Engineering

142354
142371

SUBJECT NAME: BLFP
PROJECT NUMBER: 00142803.206
WELL DESIGNATION: MW-12

PROJECT DATE: 3-14-06
SAMPLER: _____
SAMPLE NUMBER: MW-12

CONDITION OF WELL HEAD/VAULT/CAP & LOCK

- A. TOP OF CASING ELEVATION _____
B. DEPTH TO GROUNDWATER (initial) 3.73
C. DEPTH OF WELL _____
D. HEIGHT OF WATER COLUMN (C-B) MEASURED 24.57
E. GROUNDWATER ELEVATION (A-B) 24.57 - 3.73 = 20.84

CASING DIAMETER: 2" ☒ 3" _____ 4" _____ OTHER _____

CALCULATED WELL VOLUME: $D \times V = 20.84 \times 1.63 = 3.40$

- A. Volume (V) of 2" wall = 0.163 gal/ft
B. Volume (V) of 4" wall = 0.653 gal/ft

ODOR _____ SHEEN _____ FLOATING PRODUCT THICKNESS _____

PUMP TUPE: POLY BAILER _____ STAINLESS BAILER _____
ELECTRIC _____ OTHER _____

PUMP DEPTH:

TIME	GALLONS PURGED	NO. OF WELL VOLUMES	PH	TEMPERATURE (°F OR °C)	CONDUCTIVITY (mmhos/cm or µmhos/cm)	TURBIDITY (NTU or visual)
3:05	2	0.59	5.12	14.7	146.0 µS/cm	cloudy
3:19	4	1.18	5.20	14.8	165.7 µS/cm	
3:33	6	1.76	5.25	14.8	165.9 µS/cm	
3:43	8	2.35	5.25	14.8	165.8 µS/cm	
3:54	9	2.65	5.27	14.9	166.7 µS/cm	
4:02	9.50	2.79	5.28	14.9	166.9 µS/cm	
4:12	9.75	2.87	5.28	14.9	167.5 µS/cm	
4:21	10	2.94	5.28	14.8	168.0 µS/cm	
4:32	10.25	3.01	5.28	14.8	168.1 µS/cm	

RECHARGE RATE (qualitative): _____
SAMPLER TYPE: TEFLON BAILER _____ ACRYLIC BAILER _____ DISPOSABLE BAILER _____

SAMPLES COLLECTER: PRESERVED VOA'S _____ UNPRESERVED VOA'S _____
PRESERVED LITERS _____ UNPRESERVED LITERS _____
500ml PLASTIC BOTTLE WITH PRESERVATIVE FOR METALS:
FILTERED _____ UNFILTERED _____ OTHER _____

COMMENTS _____

PROJECT NAME: BLEP SAMPLER NAME: CA
 JOB NUMBER: 00142803.206 DATE WORKED: 3-14-06
 FIELD HOURS: _____

Quantity	Item	Cost \$	per:	total
PPE				
	Tyveks Suits (White)	\$6.00	each	
	Polyethylene Suit (yellow)	\$7.59	each	
	Gloves, nitrile	\$2.59	pair	
	Organic Vapor Cartridge R51A	\$10.08	pair	

SAMPLING				
	Traffic Control Barricades	\$5.00	each	
4	Disposable Bailers and drain tube	\$8.00	each	32.00
	Pressurized bailers	\$10.00	each	
	Filters	\$15.00	each	
	Encore Sampler Set (included 3- 5 gm. samplers)	\$30.00	each	
	Extra sampler	\$10.00	each	
1	Purge pump 2" submersible	\$45.00	day	45.00
	2" Well Point w/ 4' extensions	\$50.00	day	
	1" Well Point w/ 4' extensions	\$50.00	day	
	Drum Thelves	\$3.04	each	
	Soil tubes (brass)	\$8.00	each	
	Soil tubes (ss)	\$10.00	each	
	Hand auger with split spoon sampler/hammer	\$30.00	day	

WELL CONSTRUCTION & DEVELOPMENT				
	Stainless bailer	\$5.00	day	
	1 1/4" poly well development hose	\$0.25	foot	
	2" PVC well casing SCH 40	\$3.50	foot	
	2" PVC slotted well screen SCH 40	\$4.50	foot	
	Visquene (6 mil) sheeting (100x20 ft)	\$70.00	roll	
	Locking well cap (2")	\$20.00	each	
	Locking well cap (4")	\$22.00	each	
	Padlock	\$10.00	each	
	PVC slip on caps (2")	\$4.00	each	
	PVC slip on caps (4")	\$8.00	each	
	Bentonite, 50 lb. Bag	\$10.00	each	
	55 gallon Drum	\$40.00	each	

INSTRUMENTATION				
1	Water level indicator probe	\$25.00	day	25.00
	Water/Product interface meter	\$40.00	day	
1	Dissolved Oxygen Meter	\$40.00	day	40.00
	DO field test kit	\$1.00	test	
	Photovac TIP Photo-ion detector	\$100.00	day	
	Sensidyne Pump	\$25.00	day	
	Sensidyne Tubes	\$7.00	each	
	Air Sampling pump	\$50.00	day	
	Drager/Rea Air Sampling Tubes	\$40.00	day	
1	pH/Cond/Temp Meter	\$40.00	day	40.00
	Turbidity Meter	\$20.00	day	
	Pipe Finder (metal detector)	\$20.00	day	
	Surveying Total Station	\$100.00	day	

SMALL ITEMS				
	Misc. small items*	\$25.00	day	25.00
*small items include disposable gloves, water, foil, tape, towels, plastic bags, fishline, soap, labels, etc.				

TOTAL:		207.00	
MILEAGE LOG:			
ending:	142389	note: mileage to max \$60/day	
starting:	142354		
total	35		
		\$0.50 mile	17.50



Chain of Custody

P
of

LABORATORY NUMBER:

TAT: ☐ 24 Hr ☐ 48 Hr ☐ 5 Day ☐ 5-7 Day

☐ STD (2-3 wk) ☐ Other:

PRIOR AUTHORIZATION IS REQUIRED FOR RUSHES

REPORTING REQUIREMENTS: State Forms ☐

Preliminary: FAX ☐ Verbal ☐ BY: / /

Final Report: FAX ☐ Verbal ☐ BY: / /

CONTAINER CODES: 1— $1\frac{1}{2}$ gal. pl; 2—250 ml pl;

3—500 ml pl; 4—1 L Nalgene; 5—250 ml BG;

6—500 ml BG; 7—1 L BG; 8—1 L egg; 9—40 ml VOA; 10—500 ml P₁; 11—1 L xanthene; 12—250 ml BG; 13—500 ml P₁.

10=1.25 ml VOA:11=4 oz glass jar:12=8 oz glass jar:

10—123 IIII VOA, 11—4 C
13—brass tube; 14—other

PRESERVATIVE CODES: a—HNO₃; b—HCl; c—H₂SO₄.

$d = \text{Na}_2\text{SO}_4$; $e = \text{NaOH}$; $f = \text{CH}_3\text{OCl}$; $g = \text{ethanol}$; $h = \text{HNO}_3$; $i = \text{HCl}$; $j = \text{H}_2\text{O}$.

SAMPLE CONDITION/SPECIAL INSTRUCTIONS

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SAMPLE DISPOSAL

☐ NCL Disposal of Non-Contaminated

☐ Return ☐ Pickup

*MATRIX: DW=Drinking Water; Eff=Effluent; Inf=Influent; SW=Surface Water; GW=Ground Water; S=Soil; O=Other.

ALL CONTAMINATED NON-AQUEOUS SAMPLES WILL BE RETURNED TO CLIENT